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REMARKS

Claims 1 through 19 and new Claims 20 through 22 are pending in the application.

Claim 1 has been amended to reflect that the base layer (B) advantageously includes polyester. Support for this amendment can be found in the Application-as-filed, for example on Page 5, lines 26 through 27.

Claim 1 has also been amended to reflect that polyester films in accordance with the invention advantageously exhibit an oxygen transmission (OTR) smaller than $25 \text{ cm}^3 \cdot \text{m}^{-2} \cdot \text{d}^{-1} \cdot \text{bar}^{-1}$ and a gloss for overlayer (A) of greater than 100. Support for this amendment can be found in the Application-as-filed, for example on Page 5, lines 14 through 15 and Page 16, lines 3 through 4.

Claims 5 and 15 have been canceled, as their subject matter has been incorporated into Claim 1.

Claims 6, 7 and 8 have been amended to conform with Claim 1 as-amended.

Claim 14 has been amended to reflect that the films of the invention advantageously exhibit a gloss of greater than 120. Support for this amendment can be found in the Application-as-filed, for example on Page 16, lines 2 through 3.

Claims 10 and 11 have been canceled, without prejudice or disclaimer to the filing of continuing applications thereon.

Claim 19 has been amended to address a typographical error.

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Claims 20 through 22 have been added to complete the record for examination and highlight advantageous embodiments of the invention.

Claim 20 is directed to advantageous embodiments of the invention exhibiting an average roughness, Ra, for overlayer (A) of from 10 to 100 nm. Support for Claim 20 can be found in the Application-as-filed, for example on Page 11, line 28 through Page 12, line 1.

Claim 21 is directed to advantageous embodiments of the invention incorporating from 10 to 60% recycle. Support for Claim 21 can be found in the Application-as-filed, for example on Page 16, lines 17 through 23.

Claim 22 is directed to advantageous embodiments of the invention in which the only catalysts associated with the film consist of polymerization catalyst(s). Support for Claim 22 can be found in the Application-as-filed, for example on Page 7, lines 24 through 30.

Reexamination and reconsideration of this application, withdrawal of all rejections, and formal notification of the allowability of the pending claims are earnestly solicited in light of the remarks which follow.

Submission of Terminal Disclaimer

Claims 1 through 19 stand provisionally rejected under the judicially created doctrine of obviousness-type double patenting in light of co-pending Application No. 10/760,987.

Applicants respectfully submit that a terminal disclaimer directed to the above-referenced invention is being submitted within the prosecution of cited co-pending Application No. 10/760,987. Accordingly, Applicants respectfully submit that the foregoing rejection has been obviated upon entry of the terminal disclaimer within co-pending Application No. 10/760,987.

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Section 112 Rejection

Claim 1 stands rejected due to the lack of a positive recitation as to which layer(s) contains polyester. Claim 1 has been amended to reflect that the base layer advantageously includes polyester. As noted above, support for this amendment can be found in the Application-as-filed. Applicants accordingly respectfully request withdrawal of this rejection.

Claims 10 and 11 stand rejected over the type of molecular weight. Claims 10 and 11 have been canceled, solely to advance prosecution of the case and without addressing the merits of this rejection. Applicants accordingly respectfully request withdrawal of this rejection.

Claim 19 stands rejected over the phrase "claimed claim." Claim 19 has been amended to address this typographical error. Applicants accordingly respectfully request withdrawal of this rejection.

The Claimed Invention is Patentable
in Light of the Remaining Art of Record

Claims 1 through 19 stand rejected under double patenting as being unpatentable over the claims United States Patent No. 6,709,735 to Posey, et al. (US 735) in view of United States Patent No. 5,021,515 to Cochran et al. (US 515) and Ullmann's Encyclopedia Of Industrial Chemistry (Ullmann).

It may be useful to briefly consider the invention before addressing the merits of the rejection.

There is a significant demand for biaxially oriented barrier films, particularly in packaging applications. Conventional barrier films are typically coated or laminated with barrier materials in an off-line process. The incorporation of barrier polymers into biaxially oriented

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films has been heretofore limited, due to the incompatibility of barrier polymers with conventional film forming polymers. In particular, such incompatibility is known to give rise to rough film surfaces during biaxial stretching. The rough film surfaces impart a low gloss and matt appearance to the film, considered undesirable in many packaging applications. (The Examiner's attention is kindly directed to the Application-as-filed on Page 2, lines 1 through 16).

Quite surprisingly, Applicants have determined that multi-layered barrier-coated films incorporating a particular barrier polymer into given layer(s) provide a highly advantageous and heretofore unknown balance of barrier and optical properties. In particular, such films have been found to provide both high gloss values and advantageous oxygen transmission rates. Unfortunately, films exhibiting high gloss values are generally known to exhibit poor handleability. Altogether unexpectedly, Applicants have further determined that a particular range of surface roughness values additionally imparts improved handleability to the foregoing multi-layered barrier films without undue sacrifice to the resulting gloss.

Accordingly, the claims are directed to polyester film having a base layer (B) onto which at least one overlayer (A) is disposed. The overlayer (A) has been further coated with a barrier layer (D). The base layer (B) is formed from poly(m-xylenedipamide) and polyester. The barrier layer (D) is comprised of a film-forming substance and a copolymer of maleic acid and acrylic acid. The resulting film exhibits an oxygen transmission smaller than $25 \text{ cm}^3 \cdot \text{m}^{-2} \cdot \text{d}^{-1} \cdot \text{bar}^{-1}$ and a gloss for the overlayer (A) of greater than 100. In particularly beneficial aspects, films in accordance with the invention exhibit a gloss for the overlayer (A) of greater than 120, as recited in Claim 14. In especially advantageous embodiments, the films of the invention further exhibit a surface roughness for overlayer (A) of from 10 to 100 nm, as recited in Claim 20.

The claims of US 735 do not teach or suggest the claimed invention. US 735 is merely directed to an improved barrier coating. The claims of US 735 are directed to polyester films. (Claims 1 and 18). Even considered in its entirety, US 735 merely generically notes that its barrier coatings are applicable to "any polymeric film." (Col. 5, lines 57 – 60). Although

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describing suitable base film constructions at length, US 735 is silent as to surface roughness and gloss values. (Col. 5, line 50 – Col. 6, line 55). US 735 further merely broadly notes that its films are “recyclable.” (Col. 5, lines 50 – 53).

US 735 does not teach or suggest the recited poly(m-xylenedipamide), as noted by the Examiner. US 735 thus does not teach or suggest the recited barrier-coated film having a polyester base layer that includes poly(m-xylenedipamide), in which the film further provides an oxygen transmission smaller than $25 \text{ cm}^3 \cdot \text{m}^{-2} \cdot \text{d}^{-1} \cdot \text{bar}^{-1}$ and a gloss of greater than 100.

Nor does US 735 teach or suggest films exhibiting an average surface roughness for overlayer (A) of from 10 to 100 nm, as recited in Claim 20.

US 735 also does not teach or suggest such films further including from about 10 to 60% of recycle, as recited in Claim 21.

Accordingly, Applicants respectfully submit that the claimed invention is patentable in light of US 735, considered either alone or in combination with the art of record.

US 515 does not cure the deficiencies within US 735.

US 515 is primarily directed to bottle resin compositions that incorporate an oxygen scavenger. (Col. 1, lines 35 – 57). The oxygen scavenger is a combination of an oxidation catalyst and an oxidisable organic component. (Col. 4, lines 26 – 32). Exemplary oxidation catalysts include cobalt, rhodium and copper. (Col. 8, lines 11 – 14). US 515 provides a laundry list of suitable oxidisable organic components, which may be either polymeric or non-polymeric. (Col. 8, line 28 – Col. 9, line 35). US 515 notes that the resulting polymers may be formed into articles using “injection moulding” and the like. (Col. 11, lines 30 – 34). US 515 is silent as to the surface properties of its articles. US 515 is also silent as to the recyclability of its articles.

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US 515 thus does not teach or suggest the recited barrier-coated films having a base layer that is comprised of poly(m-xylenedipamide) and polyester. Nor does US 515 teach or suggest such barrier-coated films that provide an oxygen transmission smaller than $25 \text{ cm}^3 \cdot \text{m}^{-2} \cdot \text{d}^{-1} \cdot \text{bar}^{-1}$ and a gloss of greater than 100.

Nor does US 735 teach or suggest films exhibiting an average surface roughness for overlayer (A) of from 10 to 100 nm, as recited in Claim 20.

US 515 also fails to teach or suggest such film further including from about 10 to 60% of recycle, as recited in Claim 21.

And US 515 most certainly does not teach or suggest such film in which the only catalysts associated with the film consist of polymerization catalyst(s), as recited in Claim 22. In fact, US 515 teaches away from such embodiments by requiring the presence of an oxidation catalyst, such as cobalt, rhodium or copper.

Accordingly, Applicants respectfully submit that the claimed invention is patentable in light of US 515, considered either alone or in combination with the art of record.

Ullmann is merely an encyclopedic reference, generally directed to a myriad of films. The Examiner is correct in that Ullmann does disclose the coating of films. Ullmann does not teach or suggest barrier films, however. Ullmann is further silent as to poly(m-xylenedipamide). Ullmann is also silent as surface gloss.

Consequently, Ullmann does not teach or suggest the recited film having a base layer that includes poly(m-xylenedipamide) and polyester. And Ullmann most certainly does not teach or suggest the recited barrier-coated film having a polyester base layer that includes poly(m-xylenedipamide), in which the film provides an oxygen transmission smaller than $25 \text{ cm}^3 \text{ m}^{-2}$

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$d^{-1}\cdot\text{bar}^{-1}$ and a gloss of greater than 100 nm.

Ullmann likewise fails to teach or suggest such films exhibiting an average surface roughness for overlayer (A) of from 10 to 100 nm, as recited in Claim 20.

Nor does Ullman teach or suggest such film including from about 10 to 60% of recycle, as recited in Claim 21.

Accordingly, Applicants respectfully submit that the claimed invention is patentable in light of Ullmann, considered either alone or in combination with the art of record.

There would have been no motivation to have combined US 735, US 515 and Ullmann. Applicants respectfully submit that merely because the references can be combined is not enough, there must still be a suggestion. MPEP 2143.01 (section citing Mills).

US 735 is directed to improved barrier coatings. US 515 is directed to improved barrier bottle resin. US 735 and US 515 thus present alternative means by which to improve the barrier properties of the resulting articles. Accordingly, there would have been no motivation to have looked to the combination of these references. Applicants respectfully submit that the Office Action is indulging in impermissible hindsight by merely picking and choosing elements from the prior art while using the instant specification as the guide for that selection process.

However, even if combined (which Applicants submit should not be done), the claimed invention would not result. US 735 is merely directed to a particular coating composition. US 515 is directed to the incorporation of an oxidation catalyst, such as cobalt, within bottle resin. Ullmann is merely an encyclopedic reference generically describing films.

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Consequently, the combination of US 735, US 515 and Ullmann does not teach or suggest the recited barrier-coated film having a polyester base layer that includes poly(m-xylenedipamide), in which the film provides an oxygen transmission smaller than $25 \text{ cm}^3 \cdot \text{m}^{-2} \cdot \text{d}^{-1} \cdot \text{bar}^{-1}$ and a gloss of greater than 100.

The combination likewise fails to teach or suggest such films exhibiting an average surface roughness for overlayer (A) of from 10 to 100 nm, as recited in Claim 20.

Nor does the combination teach or suggest such film further comprising from about 10 to 60% of recycle, as recited in Claim 21.

And the combination most certainly does not teach or suggest film in which the only catalysts associated with the film consist of polymerization catalyst(s), as recited in Claim 22. In fact, US 515 teaches away from such embodiments.

Neither US 735, US 515 or Ullmann addresses the issue solved by the instant application, i.e. the provision of films having a balance of barrier and optical properties. Accordingly, they can not suggest a solution to that problem. The instant invention resides in the selection of particular elements from a wide number of possibilities to solve a specific problem, i.e. the matching of multiple polymers within various layers to produce barrier films exhibiting both an oxygen transmission smaller than $25 \text{ cm}^3 \cdot \text{m}^{-2} \cdot \text{d}^{-1} \cdot \text{bar}^{-1}$ and a gloss of greater than 100.

Accordingly, Applicants respectfully submit that Claims 1 through 4, 6 through 9, 12 through 14 and 16 through 22 are patentable in light of US 735, US 515 and Ullmann, considered either alone or in combination.

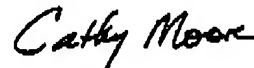
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CONCLUSION

It is respectfully submitted that Applicants have made a significant and important contribution to the art, which is neither disclosed nor suggested in the art. It is believed that all of pending Claims 1 through 4, 6 through 9, 12 through 14 and 16 through 22 are now in condition for immediate allowance. It is requested that the Examiner telephone the undersigned if any questions remain to expedite examination of this application.

It is not believed that extensions of time or fees are required, beyond those which may otherwise be provided for in documents accompanying this paper. However, in the event that additional extensions of time and/or fees are necessary to allow consideration of this paper, such extensions are hereby petitioned under 37 CFR § 1.136(a), and any fee required is hereby authorized to be charged to Deposit Account No. 50-2193.

Respectfully submitted,



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CERTIFICATE OF FACSIMILE TRANSMISSION

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